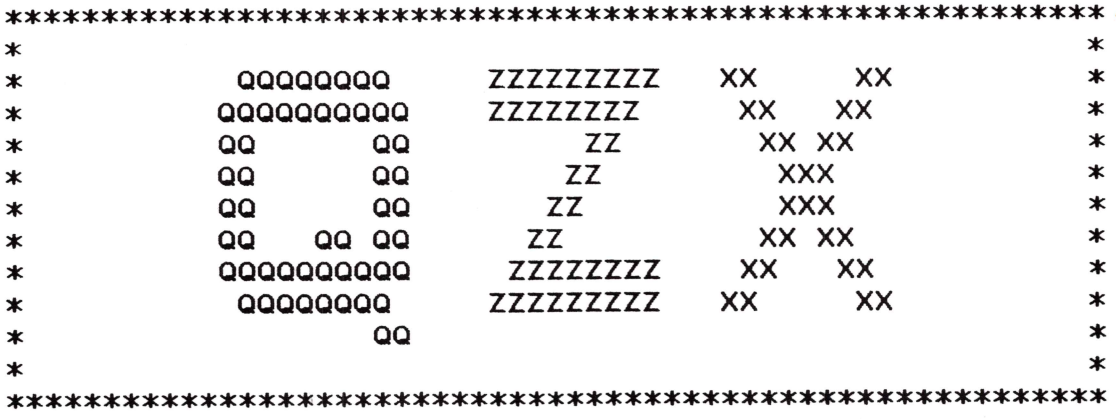
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The Journal Covering Amateur Radio & Sinclair Computers
ZX80; Micro-Ace; ZX81; TS1000, 1500, & 2068; QL; Z88
Alex. F. Burr, K5XY, Publisher
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* BITS AND BYTES
* WHITHER THE QL WA6DLI

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EDITOR'S NOTES

K5XY

You will notice that the RMG ad this month mentions that they have a very large collection of MSDOS software available as well as their colletion of Sinclair materials. Remember that there are emulation programs that let a QL run MSDOS programs.

A Sinclair computer got mentioned in a national computer weekly a few days ago. I was surprised when a well known columnist said that the smallest computer he could conveniently use was the Sinclair Z-80. I thought this quite odd because he often makes a point about hard to use keyboards, and why would he mention the 80 and not the 81. Then it finally dawned on me. He wrote Z-80 not ZX80 and he was not referring to the cpu used but to the Z-88, which is indeed the smallest computer available with something approching a regular keyboard.

QZX FRIENDS

W6OOA said that he appreciated the articles by WA6DLI.

Ike Walker got the Kradle information offered in the last issue.

WA4GQE -- Ed, from Kentuckey, visited New Mexico again. He saw the Very Large Array, the large radio astronomy installation in central New Mexico, and stopped by QZX to pick up a 16 K RAM (see the Unclassifieds).

WV3Q -- Bob made a donation to the postage fund and noted that his interest in the QL is as strong as ever. He has three of them, two disk drives, and a lot of other items too.

UNCLASSIFIED ADS

WANTED: UNCLASSIFIED ADS for publication in QZX. Cost is 1 cent for each keystroke (characters, blanks, etc.). Payment must be included with order. This is an excellent way to sell your program or unwanted equipment, ask for help, or find a specific program. Send your ad with payment to QZX, 2025 O'Donnell, Las Cruces, NM 88001.

QZX Discount: 15% discount on all orders mentioning QZX. T & C Services (address in ad in this issue).

FREE: Two 16 K RAM packs for the ZX81 or TS1000 contributed by KA8THG. One Sinclair ZX 16K RAM. One Byte-Back M 16 (no printed circuit board on the feed through socket). All as is. Please indicate the order of preference for the packs. It would be appreciated if a contribution toward the mailing expenses were made. Send requests to QZX (KA8THG), 2025 O'Donnell, Las Cruces, NM 88001.

FOR SALE: CP/M Books. Almost new. Half price. THE PROGRAMMER'S CP/M HANDBOOK by Andy Johnson-Laird. Osborne. Hardback 500 pages. $19. THE BYTE GUIDE TO CP/M by Mark Dahmke. McGraw Hill $8.50. 250 pages. CP/M USERS GUIDE by Thom Hogan. Osborne $8.95. 330 pages. THE CP/M PLUS HANDBOOK by Alan R. Miller. Sybex. 250 pages. $7.90. INSIDE CP/M PLUS by David E. Cortesi. Holt-Rinehart. 260 pages. $9.25. CP/M BIBLE by Waite and Angermeyer. Howard Sams. 430 pages. $9.90. USERS GUIDE TO CP/M SYSTEMS by Bove and Rhodes. Baen. 300 pages. $4.50. $1.00 each shipping and handling. A. F. Burr, 2025 O'Donnell, Las Cruces, NM 88001.

WANTED: Any information on "Tutor" 16 bit Graphic Computer made by Tomy. Edward L. Radtke, 1602 Woodluck Ave., Louisville, Kentucky 40205, Phone 502-458-7324.

WANTED: Votem analog interface for Timex/Sinclair. Edward L. Radtke, 1602 Woodluck Ave., Louisville, Kentucky 40205, Phone 502-458-7324

The following article is the first part of a brief history of the QL written from the viewpoint of an active amateur. The second part will appear next month.

WHITHER THE QL COMPUTER? by Bob Howard, WA6DLI

The Sinclair QL Computer was hurriedly introduced in April of 1984, following the ZX-81 (Timex-1000) of 1981, and the Sinclair Spectrum of 1982 (which we did not see until end of 1983 as the Timex 2068). Today some with their cheap clones may wonder what all the excitement was about. It is very sobering to see what was on the market in 1982 in the USA and what it cost. No wonder the ZX-80 sold like hotcakes for $200, and the improved ZX-81 for $99.95 in kit form. They were eagerly bought by college students who realized the superior computing ability over the Apple and most others of the time.

AVAILABLE COMPUTERS 1982

	Price	RAM	Min	Max	
APF Imagination Machine	IM-1	1-8k	$ 599	$ 899	
Apple II		16-48k	1195	1495	
Apple III		96-128k	3490	3990	
Atari 400		8-16k	500	630	
Atari 800		8-48k	1080	1480	
Commodore PET 4000 Series*		8-32k	795	1295	
Commodore CBM 8000 Series		16-32k	1295	1795	
Cromemco System Three		64-320k	7395	16220	
Cromemco Z2-H		64-320k	9995	19810	
Cromemco System Zero		1-64k	995	2995	
Dynabyte 8/2		48-64k	4895	5295	
Exidy Sorcerer		8-32k	895	1395	
Heath H-8		16-64k	598	1869	(kits)
Heath H-11A		16-32k	1675	2155	(kits)
Heath H-89		16-48k	1695	kit2895	assmbld
Hewlett Packard HP-85		16-32k	3250	3645	
ISC Compucolor II		8-32k	1495	1995	
ISC Intercolor 8000 Series		16-48k	1895	3040	
Mattel Intellivision		2-16k	300	800	
NorthStar Horizon		16-64k	1789	3830	
Ohio Scientific Superboard		4-8k	279	577	
Radio Shack TRS-80 Color		4-16k	399	518	
Radio Shack TRS-80 Pocket		1.9k	250	--	
Radio Shack TRS-80 Model III		4-48k	699	2495	
Radio Shack TRS-80 Model lI		32-64k	3450	3899	
Radio Shack TRS-80 Model I		4-48k	499	1446	
Sinclair ZX-80		1k	200		
Texas Instrument TI-99/4		16k	950		
Vector Graphics		56k		5463	
Zenith Z-89		16-48k	2595	2895	

* I have a picture of the Leica Solms factory with one of these Pets as the testing computer! (Leica Cameras)

The IBM Jr. was a dismal failure, and the IBM PC of 1984 was vastly overpriced, but fortunately in a competition between divisions as to the most economical design, the Boca Raton FL factory chose to make one with very little proprietary features, thus the Taiwanese were able to clone it and to everyone's surprise cut out the Japanese as competitors, except for the very successful Epson QX-10, which died for being a CP/M machine. So in late 1984 (the year the LISA, Macintosh, and several other computers using the 68000 Motorola chip were introduced), the QL looked very good with its 128K ROM, 128K RAM, fast 10 MHz speed and built in Microdrives which gave a storage system at no extra cost.

The Microdrives have become an Achilles Heel because the cartridges are more expensive that present day disks...BUT when the Microdrive was designed for the Spectrum, in Europe the 8 inch floppy was still king having been the standard for many CP/M computers..so the little Microdrive on the Spectrum gave 200K versus a single sided 8-inch floppy at 160K. By the time of the QL 5¼-drives were available, but not yet a surplus item and much more expensive than Sinclair could have used in a computer for small business and the populace. Porting the Mircrodrives to the QL was a sales point, having been already developed for the Spectrum.

QL's as they improved over the introduced version, were bought mostly by former Sinclair users and the few that recognized its advantages and special features. At the end of 1984, partly due to the IBM being introduced and because the public was over the 'fad' of home computers and onto VCRs, camcorders, and other baubles, there was a great fallout of computer makers. Timex left the scene just after introducing the TS-2068, which was mostly only available in the Sears Christmas catalog, most mass marketeers having decided they weren't the vehicle to sell computers, if they had to explain them to customers. I think it has been estimated that perhaps 69,000 QLs were sold world-wide. From the ROM versions (Finnish, Swedish, French, German, American, etc. it had some distribution.)

Lucky for us, the USA model was type approved by the FCC, just before Sinclair sold out to Amstrad, who continued to make the Spectrum Plus in a QL case in England. THe first run of QL's acquired from Sinclair Research USA Ltd. by A+ Computers in New Hampshire may have been a run of 5000 or so. We have had very good support considering that countries like Greece and Italy may have had 15,000 computers each. The USA and German models we saw were very well RFI proofed and made by Samsung in Korea. Who incidentally made the TImex TS-2068's, so there must have been a Timex connection. Timex had made the several million ZX-81's and TS-1000's in factories in Scotland, France, Portugal and Spain.

The QL is a superior computer having approximately CGA color (your choice of either of four colors, out of the eight). It does multitask, which only the Amiga could do among competitors until DesqView came along for the IBM clones..mostly needed at least an AT clone. The QL also came with four Psion programs which were very advanced for the day. It took years for

other word processors to be WYSIWYG (WizzyWig or what you see is what you get!), which was standard with Quill in 1984. Most don't remember that the IBM PC as introduced had NO graphic capability, so one made graphs for Lotus etc. with | vert bar _ horizontal underline and * or + for points as you might do on a typewriter if you had a vertical bar otherwise forced to use ! as a sub. Easel was a revelation for business graphics, and Archive a superior database language most did not succeed in learning. Abacus the spreadsheet had smart titles..columns and row titles could be called instead of using numbers and names. All these came with the QL. So even at the introduced price of $500, which rapidly fell to $300, it had a lot of offer versus a $2000 XT. At the sellout of A+ Computer stock, most acquired if unsold by Sharps Inc. of Mechanicsville, VA., a QL assembled went for $69, the last 'panic' kit price...when kits were exhausted. With scarcity I think a QL is up to about $99 if found new or refurbished.

From its demise about 1986 when Amstrad took over, it has been an Orphan. And like with all orphans is not much supported by the main stream. But even in this country for seven years since its introduction there are been active user groups and newsletters, some specific like Quantum Levels. For most of these years Computer Shopper ran a Sinclair-Timex column until taken over by Ziff-Davis (the executor of all that was good..Creative Computing, Sync, and numerous others). A sort of clone of the old Computer Shopper is Computer Monthly which has picked up most old and new 'orphan' columnists of the orphan computers, including Bill Ferrabee for Timex-Sinclair.

The hard-core QL user like myself, not only had the better newsletters such as QZX, CATS, LIST, SUM, TIME DESIGNS, UPDATE, and some I may have forgotten, but also subscribed to the English user group QUANTA and the magazine Sinclair QL World, but still extant. Following these it is amazing what could be found in both software and hardware and still continues from fewer vendors but of higher quality. If you were on your toes, you found that third parties like Miracle of England made disk drive interfaces (following the Timex third party people by using the Shugart disk interface standard), which made all the surplus IBM floppy drives of any type available. This is something the Commodore, Atari, Texas Instrument computer users never had!

To avoid quoting all that was available I will tell a true story of a friend with a QL, who has never looked elsewhere or read any computer magazines except the Sinclair specific, but fell in love with his 'bargain' $69 QL I tipped him on purchasing and has joined QUANTA and subscribed to QL World and mostly purchased from US vendors Sharp Inc. or RMG in Oregon, a QZX advertiser.

On getting his QL (he since bought 3 more for spares, one being a Tom Bent 'bulletproofed' model with all the mods), Dan needed a color monitor. Not knowing if the new fangled gadget called a computer would 'take', he was a bit hesitant to spend three times the cost of his computer for just a monitor, so instead bought the best TV he could find that included a computer monitor feature! Now being the 'best' this had RGB as well as

composite, that might have been the only option on a cheaper 'monitor' model. It worked, but like most he found that the QL on monitor mode had a bit of a problem when faced with the American TV standard (Sinclair had only fixed the composite TV side for the USA)...the jack labelled TV.. to go to channel 3 or 4. Now it was possible to go into the set and fool with horizontal and vertical size etc. to get the computer screen right, but he realized that this would louse up the TV display forever. What to do...well he took it back and just said simply, I want a REAL computer monitor for this thing! Naturally they gave him the equivalent value, so he came home with a NEC Multisync, something quite new on the market. He was delighted to find that once he figured out the pin out of a plug to the QL, it work perfectly right out of the box. So he was so happy he forgot about any overkill he might have made.

In the past three years, he added the Miracle Trump card, after playing with a Miracle Expansion Memory and Cumana Disk interface I had loaned him. The TrumpCard came later and provided a full expansion to maximum RAM nearly 1 meg, and built-in utilities such as screen dumps, improved editing, Toolkit II, etc. as well as full IBM type floppy disk drive control. He has mastered Quill, and Archive (to make record library catalogs etc.) adding a Panasonic 1124 printer and the Schön 'IBM' external keyboard to make it all convenient. In debugging the installation of these accessories when they face an American QL instead of a British one, he has become much more computer literate. The American QL came with a JSA rom, a British JS rom with American accent. We both upgraded to an MG rom, that supposedly has fixed most bugs. Dan has since gone on the the rom rewrite called Minerva, initially only sold to you if you could provide them a tape/disk of your rom contents to prove you had one..a necessity to avoid copyright infringement, as you were in effect upgrading a true Sinclair rom with Minverva. This has all functioned so well that in the middle of last year, Dan ordered the Miracle Hard Drive 'Winny'. It had its learning curve too as most of the software past and present wasn't ready to cope with Winchester addressing...Miracle has a software patch to help out, but the main problem as ever was copying over software with some kind of protection...hidden numbers and disk labels etc. that are checked. Fortunately, there is Formatter and Locksmithe, and ICE (the Icon Controlled Environment) can move files with funny names intact. So more computer education.

With all the good results in output, and because he had seen some Times font from my LISA (obtained in a camera trade), my friend moved the Panasonic to another QL and opted for a HP INKJET 500, which is better than laser quality. This to go with Text^{87}, a super deluxe word processor, slightly more friendly than Editor but not tail-wagging like Quill. He has just ordered Perfection, the WP by Digital Precision, a major software house for the QL. It is supposed to have the smarts of Text^{87} with the friendliness of Quill. So there has been no letup in new ROMs, RAM, software, and gadgets to keep a QL man happy. The QUANTA library alone could keep one in most software you could ever use.

In one of the recent Sinclair QL Worlds, one of the

columnists, who also uses IBM clone with Windows, commented that what seems to have happened is that those that use their computers for useful purposes, are more than happy with their QL, especially since some things like comms and printing can be multitasked while doing something else, but he says the current trend seems to be to put in monstrous memory hogs like Windows, that need several megs just to look at a simple programs. So it is now a case of 'playing around' with computers rather than doing useful work. Of course, the hams found out on the clones that DesqView works where Windows doesn't on running bbs and packet and doesn't need all new programs..but will also coexist with Windows.

The same author, had an East German student visitor, who was fascinated that there was a QL. The Englishman thought this poor student probably had an old Spectrum in East Germany, but no, the student turned out to have all the latest clone hardware straight from Taiwan or Korea. And all the software was available in pirated form in E.Germany...a condition that will probably not continue. The only thing the E. German found in England that was cheaper was a postage stamp!

The latest things for the QL besides, QRAM and other shells that have replaced ICE, include the new Miracle GOLDcard...which is available with a trade-in of Trumpcard and other Miracle products. Goldcard plugs in an replaces the 68008 chip with a full 68000 chip for a 4-time speed increase. One newsletter comment was that one user found his QL emulated the IBM with Conqueror program and worked faster than his Amstrad PC, a normal 4.7MHz XT compatible. The speed increase is accompanied by a full two meg of RAM on the same board with full 16 bit bus access to the 68000. A 68008 is a 32 bit chip with an 8 bit bus. The 68000 is 32 bit/16 bit bus. Only the later chips have 32 bit bus..but this requires 32 bit bus support chips so are only used in work stations or maximum speed computers. The Goldcard without a trade in is about $600.

Another new product from Germany, by Julius Falkenburg is sold also by some of the English outlets like ECC, a QL accessory dealer and perhaps by the American vendors soon. It is a universal keyboard adapter which allows almost ANY clone IBM keyboard to be used. This means no worry about membranes or ribbon failure as a new keyboard is cheaply replaced for $30-40 brand new. It is about $80 for the interface and has an external and internal model. Again Dan had to do some fussing around to adapt it to the American model with its heavy steel plate inside etc. But he says it works like a charm with a Northgate KB.

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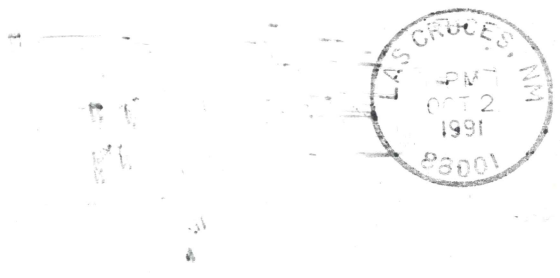

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